CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

March 25, 2011

DOCKET
01-AFC-19C
DATE MAR 25 2011
RECD. MAR 25 2011

Keith McGregor
Associate Project Manager
CH2MHILL
2485 Natomas Park Drive, Suite 600
Sacramento, CA 95833

SUBJECT: SMUD COSUMNES POWER PLANT PROJECT (01-AFC-19C) AMENDMENT, DATA REQUESTS #1-11

Dear Mr. McGregor:

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission (Energy Commission) staff requests the information specified in the enclosed Data Requests. The information is necessary for Energy Commission staff to more fully understand the project and the proposed amendment and to assess the impacts of the project.

This set of Data Requests (#1-11) is being made in the areas of air quality, soil and water resources, and waste. The Data Requests were developed as a result of staff's review of the proposed Cosumnes Power Plant Project Amendment Petition (Petition) filed with the Energy Commission on December 29, 2010. Written responses to the enclosed Data Requests are due to the Energy Commission staff on or before April 25, 2011 or at such later date as may be mutually agreed.

If you are unable to provide the information, or object to providing the requested information, please notify me within 14, days of receipt of this request. Any objections to the Data Requests must contain the reasons for not providing the information and the grounds for any objections (see Title 20, California Code of Regulations, section 1769).

If you have any questions, please call me at (916) 651- 3770, or E-mail me at csnow@energy.state.ca.us.

Sincerely,

Christina Snow

CHRISTINA SNOW
Compliance Unit

cc: Brad Jones, SMUD
Docket Unit

Technical Area: AIR QUALITY
Author: Joseph Hughes

Fuel Use
BACKGROUND

The proposed petition to amend would allow the Cosumnes Power Plant Project (CPP) to incorporate digester gas into its fuel supply that would otherwise be burned at the Carson Ice-Gen. The incorporation of digester gas could enhance SMUD's renewable energy portfolio by using the fuel in a more efficient way. However, the proposed project would result in an increase of sulfur dioxide (SOx) emissions and an increase in the gas volume flow at CPP to maintain the rated turbine output.

DATA REQUEST

1. What type of fuel would be used at the Carson Ice-Gen to displace the digester gas being redirected to the CPP?
2. Would there be a decrease in emissions of SOx at the Carson Ice-Gen equal to, or greater than, the increase proposed at the CPP?

Cooling Tower
BACKGROUND

The proposed petition to amend would increase the allowable total dissolved solids (TDS) level in the cooling tower recirculation water from 800 ppmw to 1,500 ppmw, measured over 3-hour averaging period. The higher TDS levels would potentially result in higher emissions of particulate matter less than 10 micrometers in aerodynamic diameter (PM10) from the CPP cooling tower. CPP has requested the use of a correction factor of approximately 67%, when quantifying PM10 emissions from the cooling tower. The request is in light of a recent study that suggests a single particle will form when a single water droplet evaporates. From this, predicted mass distribution of drift droplet sizes for this project estimates that approximately 67% of the emissions would be PM10. Staff does not necessarily agree with this assumption, based on a lack of evidence. The cooling tower was analyzed in 2003 during the licensing certification, and then again in 2007 during an amendment with the conservative assumption that 100% of the emissions are PM10. Staff has the obligation to ensure mitigation for the worst case scenario. The inability to accurately quantify emissions from these types of sources requires staff to conservatively assume that 100% of the emissions are PM10, unless proven otherwise.

DATA REQUEST

3. If the 67% correction factor is used, can CPP identify source testing methods that would confirm that PM10 emissions from the cooling tower are below 0.39 lb/hr (or that 67% of the emissions are PM10) and commit to a condition of

certification that would require this as verification to ensure that all project emissions are appropriately mitigated?

Mitigation
BACKGROUND

During the original licensing of the CPP, 158,984 lb/year of PM10 emission reduction credits (ERC) were provided to mitigate the facility impacts. During the 2007 amendment, another 1,411 lb/year of PM10 ERC's were provided to mitigate the change in operating parameters for the cooling tower. The ERC's provided were a combination of PM10/2.5 ERC's and inter-pollutant trading of SOx ERC's at a determined ratio. All ERC's provided were also adjusted with an appropriate distance ratio as required by the district. The current petition to amend would require mitigation for PM10 and SOx. The CPP has identified that PM10 ERC's would be required by the District and that SOx ERC's would be required by CEQA to mitigate secondary particulate formation. The CPP has requested using the surplus emissions provided in 2003, as required by the District's distance ratio, to offset the increase in SOx emissions. Although staff does agree that the surplus would adequately mitigate the increase in SOx emissions under CEQA, staff does not agree that the surplus of ERC's provided in 2003 would adequately mitigate for the current proposed emission changes from the facility as required by CEQA and analyzed in this petition to amend.

DATA REQUEST

4. Can evidence be provided to show that the effect of these old ERC's have not yet been included in the background PM10 concentrations that are being used in the current petition to amend to evaluate compliance with ambient air quality standards?

Technical Area: SOIL AND WATER RESOURCES
Author(s): Mike Conway

Industrial Water Supply

BACKGROUND

The Cosumnes Power Plant (CPP) receives industrial supply water from the Folsom South Canal, through a 66-inch pipeline still used by SMUD's Rancho Seco plant. CPP draws water from the large pipeline through a 12-inch line routed directly to the facility. The proposed amendment would eliminate a restriction on maximum instantaneous intake rate; however the amendment does not describe how the intake rates would change and how this might affect other users.

DATA REQUEST

5. Please provide information showing the maximum water intake capacity of the plant.

6. Please identify what the expected maximum flow rate would be for project operation, when it would occur, and how long it may be sustained.

7. Please discuss whether other users connected to the Folsom South Canal conveyance system be affected by project operation at the maximum flow rate.

8. Our original Staff Analysis indicates that SMUD has a water contract with the Bureau of Reclamation that expires in December 2012. Please discuss the status of the permit renewal and whether successful negotiation of this supply agreement would impact the proposed project water supply.

9. Please discuss whether any of the current water supply agreements used for the project would limit the proposed maximum flow rate.

Technical Area: WASTE
Author(s): Ellie Townsend-Hough

BACKGROUND

A One Pass Filtration System has been added to the project water supply system for removal of TSS from the lower quality water now being delivered to the plant. Information presented in the 2009 amendment shows the treatment system could generate up to 225 lbs/hr. of waste. It is unclear how the project owner is managing this waste and whether the operation waste management plan has been updated to include this waste.

DATA REQUEST

10. Please discuss whether the operation waste management plan has been updated to include management of the One Pass Filter system waste.

11. Please discuss whether there have been impacts related to management of the One Pass filter system waste.